



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

D350-636-011
Job Sheet 175051



Part No: D350-636-011

Job Qty: 1 ea

Part Name: Skidtube LH, Std Wearplates, DART (Apical) Cylindrical/Aerazur Float Comp.



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 3/27/18

Job Tracking No:

Due Date: 4/18/18

Created By: Michelle Gagnon-Donovan

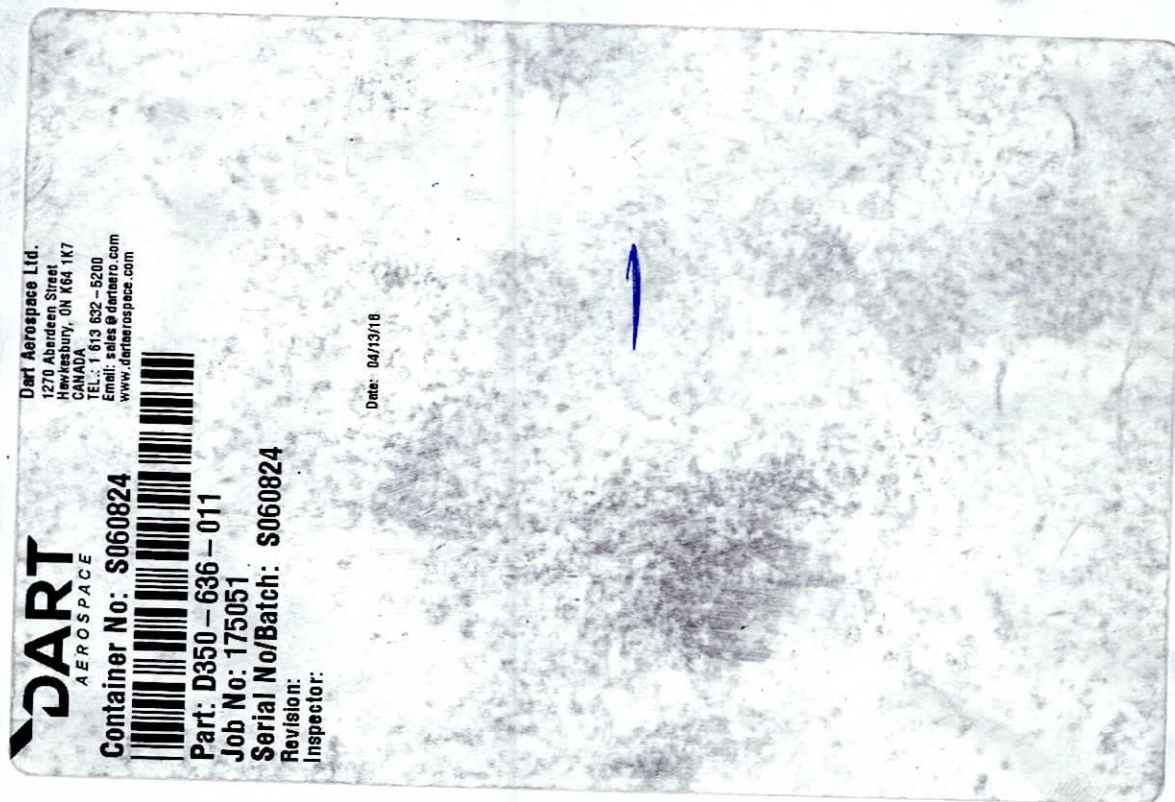
Type: SOLD

Description:

Note: D2750-041 REV G SHEETS 1,2,4,8 IPP Rev:I 02.09.25 IPP Rev:J 06-03-23 As per Rev D IPP Rev:K 06-07.13
As per dsi9343 IPP Rev:L 07-07-28 Added SS Wearplates(Rev E) JLM Ver:EC IPP Rev:M 08-04-22 DD
verified:EC IPP Rev:N 08-09-23 revF DD verified:ec IPP Rev:O 09-02-06 per PAR09-010 DD ver:EC IPP
Rev:P 10.06.22 revise seq110 DD ver:EC IPP Rev:Q 10.10.01 as per IIN revH DDver:EC IPP REV:R
13.08.27 PER ECN13-594 DD VERF:JLM

Ship Via:

Bill of Materials



S060824 L+1

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Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
90	Start up Operation	1 Ea		4/17/18	0.00	0.00	Start Up Skidtubes-1		MLG-12
110	Skidtubes	1 pcs		4/17/18	0.00	4.55	Skidtubes-4		MLG-12
120	QC	1 pcs		4/17/18	0.00	0.00	QC10		38
130	QC	1 pcs		4/17/18	0.00	0.00	QC5		9-89 38
140	HandFinish	1 pcs		4/17/18	0.00	0.93	HandFinish1		SA 18-04-14
150	QC	1 pcs		4/17/18	0.00	0.00	QC7-2		BE
160	Skidtubes	1 pcs		4/17/18	0.00	4.55	Skidtubes-4		BE 1.4
170	QC	1 pcs		4/17/18	0.00	0.00	QC10		EB
180	QC	1 pcs		4/17/18	0.00	0.00	QC5		EB
190	HandFinish	1 pcs		4/17/18	0.00	0.93	HandFinish2		SA 18-05-03
200	SprayPaint	1 pcs		4/17/18	0.00	0.91	Spray Paint		SA 18-05-03
205	Outsource	1 pcs		4/17/18			ATE003-VC 39794		CX 18/05/04
210	QC	1 pcs		4/17/18	0.00	0.00	QC14		ML 18-5-10
230	HandFinish	1 pcs		4/18/18	0.00	0.93	HandFinish4		DAE
240	QC	1 pcs		4/18/18	0.00	0.00	QC5		38
250	Packaging	1 pcs		4/18/18	0.00	0.00	Packaging1-3		9-89
260	QC	1 pcs		4/18/18	0.00	0.00	QC4		J.R.B Smb
265	DC	1 pcs		4/18/18	0.00	0.00	DC		J.R.B Smb
270	Packaging	1 pcs		4/18/18	0.00	0.00	Packaging3-1		J.R.B Smb
280	QC21-FG	1 Ea		4/18/18	0.00	0.00	QC21		21 MAY 15 2018

Part Op 110 - 1- Pick D2600-3 Bent 2- Deburr FWD and AFT ends, remove bending marks. Scribe batch# inside AFT end per dwg Descriptions: D2750-1 3- Drill pilot holes for blade fitting bolt holes using DT8983. Start with 3/16", then open to 0.500" using center drill then ream holes using 0.500" reamer. PIN first side. Repeat process on second side. ***ENSURE PROPER POSITIONING FWD BEND MUST BE FACING UP WHEN DRILLING FIRST SIDE*** Drill pilot holes as per Dwg D2750 sheet 4 (D2750-1 details). Drill using drill Jig DT8150 & DT8863A for 2nd side only DT8863B for first side (detail B) 4- Locate DT8330 off of blade fitting bolt holes and drill pilot holes for blade fitting. Open to 0.500" using hole saw. VERIFY AND RECORD FWD BEND ANGLE. 5-Drill pilot holes for wearplates as per Dwg D2750 using DT8108 open to 0.297". 6- Open up holes of Detail A to 0.297" (total of 2 holes per side) 7-Weld D2744 Cap as per Dwg D2750 and QSI 004. Fill grooves in bend left from bending as per QSI 004 A/R Aluminum Rod batch: 038611 8-Grind welds flush as per Dwg D2750

160 - 1-Open up holes using hole saw of Detail C and ground handling to 0.625" (total of 8 holes per side) as per dwg D2750. 2-Open up holes using hole saw of Detail B to 0.750" (total of 4 holes per side) as per dwg D2750. 3- Open float hole using un-bit to 0.500" (4 per side) 4-Chamfer holes of Detail B, C, ground handling and float holes per dwg D2750 (welding instructions on sheet 8) 5-Deburr and blow out all chips from inside of tube 6- Prepare tube for welding, remove alodine as required. 7-Bond web D2739 in place as per QSI 015, let cure for 12hrs. A/R Sikaflex-291 batch: M136787 exp. date: Dec 2018 ***ATTN: USE I-BEAM LOCATION AID (BLADE FITTING)*** 8- Weld spacers D3490-1, D3490-3 and D2743 as per dwg D2750 & QSI004 (welding instructions on sheet 8) A/R Aluminum Rod batch: 038611 9- At section AJ-AJ drill out x-bolt spacer to 0.404" 10-Grind welds flush as per Dwg D2750 11-Spot face ground handling holes section (total of 4 places per side) as per dwg D2750 12-Deburr holes, ensure tube is free of all scratches before sending to paint.

180 - ***VERIFY C'BOARD IS GOOD***

190 - Re-alodine tube as per QSI 005 section 4.1.2.1 do not acid etch.

200 - 1- PRIME AS PER DWG AND QSI 005 4.2 PRIMER PRC DESOTO 515X349 BATCH: _____ 2- PAINT WHITE AS PER DWG AND QSI 005 4.2 PAINT BATCH: _____

210 - Inspect for foreign object per QSI 024

230 - 1- Install inserts as per Dwg D2750 2-Inspect for Foreign Objects 3- Install blade fitting D3488-041, wearshoes and ground handling hardware as per dwg D2750 SIKAFLEX 241 BATCH: _____ EXP DATE: _____ 4- Assemble o-ring to plug as per dwg D3492 and apply o-ring lube A/R 55-o-ring lube batch: _____ 5- Coat all exposed fasteners with "LPS Procyon" batch: _____

260 - *****ensure antiseize is on AN8C21A bolts*****

265 - record fwd angle: 89.8 Photocopy blue file and type labels per PPP D350-636-011 CHG 007

270 - Package as per PPP D350-636-011 Location : FG072

003153

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
D2600-3-BENT-LH	Extrusion Bent LH	1 Ea (1 ea)	90-Start up Operation	5043955
D2744	Cap	1 Ea (1 ea)	90-Start up Operation	5038835
D2739	350 I-Beam	1 Ea (1 ea)	160-Skiddtubes	5039048
D2743	Crossbolt Spacer	8 Ea (8 ea)	160-Skiddtubes	5051803
D3490-1	Cross Bolt Spacer	4 Ea (4 ea)	160-Skiddtubes	5039269
D3490-3	Cross Bolt Spacer	4 Ea (4 ea)	160-Skiddtubes	5066254 x1
AN3C5A	Bolt	34 Ea (34 ea)	230-HandFinish	5030890x3
AN3C6A	Bolt	4 Ea (4 ea)	230-HandFinish	5057153
AN6C44A	Bolt	4 Ea (4 ea)	230-HandFinish	5019397
AN8C35A	Bolt	1 Ea (1 ea)	230-HandFinish	FM137055
D2745	Bushing	8 Ea (8 ea)	230-HandFinish	FM137203
D3488-041	Blade Fitting LH	1 Ea (1 ea)	230-HandFinish	5053757
D3492-1	Plug	8 Ea (8 ea)	230-HandFinish	5040145
D3492-3	Plug	8 Ea (8 ea)	230-HandFinish	5052900
D3535-25	Wearplate Center	1 Ea (1 ea)	230-HandFinish	5053031
D3536-25	Gasket Center	1 Ea (1 ea)	230-HandFinish	5047127
D3537-1	Wearpad	3 Ea (3 ea)	230-HandFinish	5047377
D3631-1	Washer	8 Ea (8 ea)	230-HandFinish	5045654
D3791-1	Wearpad	1 Ea (1 ea)	230-HandFinish	5058467
D3793-1	Wearplate Fwd	1 Ea (1 ea)	230-HandFinish	5019291
D3793-3	Wearplate Aft	1 Ea (1 ea)	230-HandFinish	5047586
D3794-1	Gasket Fwd	1 Ea (1 ea)	230-HandFinish	5047277
D3794-3	Gasket Aft	1 Ea (1 ea)	230-HandFinish	5046363
MS21043-6	Nut	4 Ea (4 ea)	230-HandFinish	5046244
MS21083C8	Nut	1 Ea (1 ea)	230-HandFinish	5053037
NAS1149C0332R	Washer	38 Ea (38 ea)	230-HandFinish	5634401
NAS1149C0832R	Washer	1 Ea (1 ea)	230-HandFinish	5044736
NAS1515H3L	Washer	4 Ea (4 ea)	230-HandFinish	M138405-121
NAS1611-010	O-Ring	8 Ea (8 ea)	230-HandFinish	5036714
NAS1611-013	O-Ring	8 Ea (8 ea)	230-HandFinish	5022098
ALS4-1032-225 5034366	Rivnut (x19)	38 Ea (38 ea)	230-HandFinish	M138405-121
AN8C21A	Bolt	2 Ea (2 ea)	250-Packaging	5058188 x19
D2741	Replacement Blade	1 Ea (1 ea)	250-Packaging	#M137102
D3493-1	Washer	2 Ea (2 ea)	250-Packaging	5040883
D3532-1	Spacer	2 Ea (2 ea)	250-Packaging	3052854
MS21083C8	Nut	2 Ea (2 ea)	250-Packaging	5040493
NAS1149D0863J	Washer	2 Ea (2 ea)	250-Packaging	3016888 x1
				500046 x1
				F125635

Job Allocations				
Operation	Component Part	Required	Inventory	Allocated
90-Start up Operation	D2600-3-BENT-LH	1	11	0
	D2744	1	15	0
160-Skidtubes	D2739	1	25	0
	D2743	8	201	0
	D3490-1	4	64	0
	D3490-3	4	47	0
	ALS4-1032-225	38	1,026	0
230-HandFinish	AN3C5A	34	87	0
	AN3C6A	4	318	0
	AN6C44A	4	395	0
	AN8C35A	1	60	0
	D2745	8	201	0
	D3488-041	1	7	0
	D3492-1	8	187	0
	D3492-3	8	109	0
	D3535-25	1	17	0
	D3536-25	1	27	0
	D3537-1	3	144	0
	D3631-1	8	35	0
	D3791-1	1	13	0
	D3793-1	1	17	0
	D3793-3	1	25	0
	D3794-1	1	10	0
	D3794-3	1	38	0
	MS21043-6	4	170	0
	MS21083C8	1	166	0
	NAS1149C0332R	38	4,644	0
	NAS1149C0832R	1	85	0
	NAS1515H3L	4	243	0
	NAS1611-010	8	365	0
	NAS1611-013	8	261	0
250-Packaging	AN8C21A	2	141	0
	D2741	1	65	0
	D3493-1	2	60	0
	D3532-1	2	38	0
	MS21083C8	2	166	0
	NAS1149D0863J	2	147	0
Part Specifications				
Specifications could not be found.				

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QTY -041	QTY -042	QTY -043	QTY -044	PART NUMBER	DESCRIPTION
X				D2750-041	350 SKIDTUBE ASSEMBLY, LH
	X			D2750-042	350 SKIDTUBE ASSEMBLY, RH
		X		D2750-043	350 SKIDTUBE ASSEMBLY, LH
			X	D2750-044	350 SKIDTUBE ASSEMBLY, RH
1	1	1	1	D2739	WEB
8	8	8	8	D2743	SPACER
1	1	1	1	D2744	CAP
8	8	8	8	D2745	BUSHING
1				D2750-1	SKIDTUBE WELDMENT, LH
	1			D2750-2	SKIDTUBE WELDMENT, RH
		1		D2750-3	SKIDTUBE WELDMENT, LH
			1	D2750-4	SKIDTUBE WELDMENT, RH
1	1	1	1	D3488-041	BLADE FITTING, LH
	1		1	D3488-042	BLADE FITTING, RH
4	4	4	4	D3490-1	SPACER
4	4			D3490-3	SPACER
		4	4	D3490-5	SPACER
8	8	8	8	D3492-041	PLUG ASSEMBLY
8	8			D3492-043	PLUG ASSEMBLY
		8	8	D3492-045	PLUG ASSEMBLY
1	1	1	1	D3535-25	WEARSHOE
1	1	1	1	D3536-25	GASKET
3	3	3	3	D3537-1	WEARPAD
8	8	8	8	D3631-1	WASHER
1	1	1	1	D3791-1	WEARPLATE
1	1	1	1	D3793-1	WEARSHOE
1	1	1	1	D3793-3	WEARSHOE
1	1	1	1	D3794-1	GASKET
1	1	1	1	D3794-3	GASKET
38	38	38	38	ALS4-1032-225	INSERT (OR ALS7-1032-225, AKS4-1032-225, AELS-1032-225)
34	34	34	34	AN3C5A	BOLT
4	4	4	4	AN3C8A	BOLT
4	4	4	4	AN8C44A	BOLT
1	1	1	1	AN8C35A	BOLT
38	38	38	38	AN960C10L	WASHER
1	1	1	1	AN960C816L	WASHER
4	4	4	4	MS21043-6	NUT
1	1	1	1	MS21083C8	NUT
4	4	4	4	NAS1515H3L	WASHER

GENERAL NOTES:

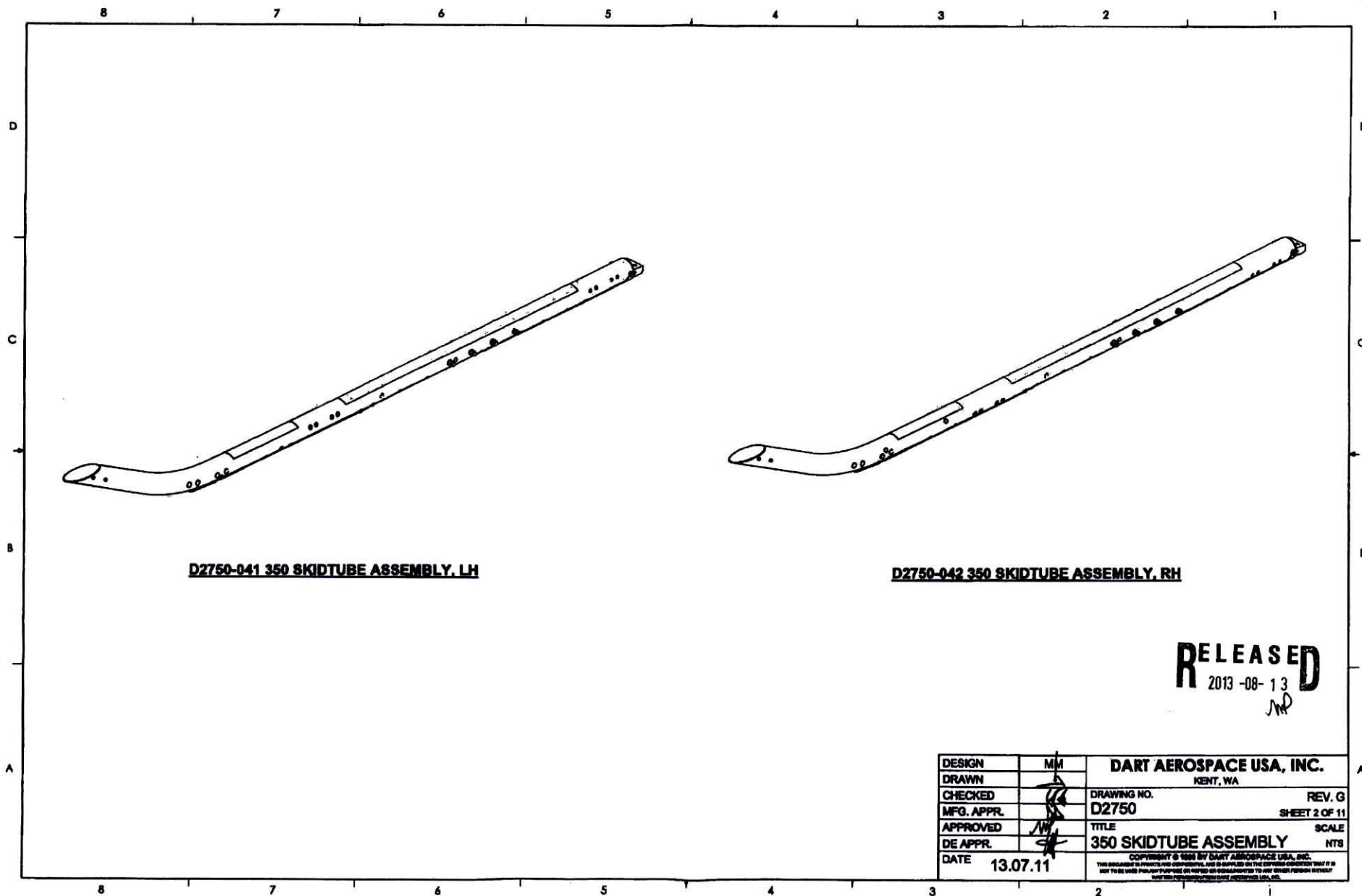
- MATERIAL: MAKE D2750-1/-2/-3/-4 FROM D2600-3 EXTRUSION (INITIAL LENGTH = 120.0).
- FINISH: ACID ETCH, ALODINE ASSEMBLY PER DART QSI 005 4.1 PRIOR TO INSTALLING D2739 WEB.
 STANDARD: PRIME (REF. 4.2.1.3.3) AND PAINT WHITE PER DART QSI 005 4.2
 OPTIONAL: POWDER COAT WHITE (REF. 4.3.5.1) PER DART QSI 005 4.3
 BLACK ANTI-SKID PAINT AS INDICATED TO 1.0 ABOVE SKIDTUBE CENTER-LINE PER DART 005 4.4 (OPTIONAL).
- TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- UNITS: INCHES UNLESS OTHERWISE NOTED
- BREAK SHARP EDGES: N/A
- IDENTIFICATION: N/A
- WEIGHT: D2750-041/-042/-043/-044 = 26.5 LBS
- WELD PER DART QSI 004
- INSTALL ALS4-1032-225 INSERTS AFTER FINISH AS INDICATED. DRILL 'F' SIZE HOLES ($\phi 0.297$) FOR WEARSHOE INSERTS
- FINAL CONFIGURATION SHOULD HAVE THE FOLLOWING MINIMUM MECHANICAL PROPERTIES:
 MINIMUM YIELD TENSILE STRENGTH = 35 KSI
 MINIMUM ULTIMATE TENSILE STRENGTH = 38 KSI
- COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES "LPS PROCYON" AFTER FINAL ASSEMBLY, CLEAN EXCESS OFF
 FINISH WITH MEK DEGREASER.
- SPACER AND PLUG INSTALLED SAME AS SECTION AJ-AJ EXCEPT HORIZONTAL
- SPACER AND PLUG INSTALLED SAME AS SECTION AP-AP EXCEPT HORIZONTAL

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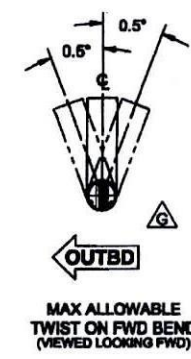
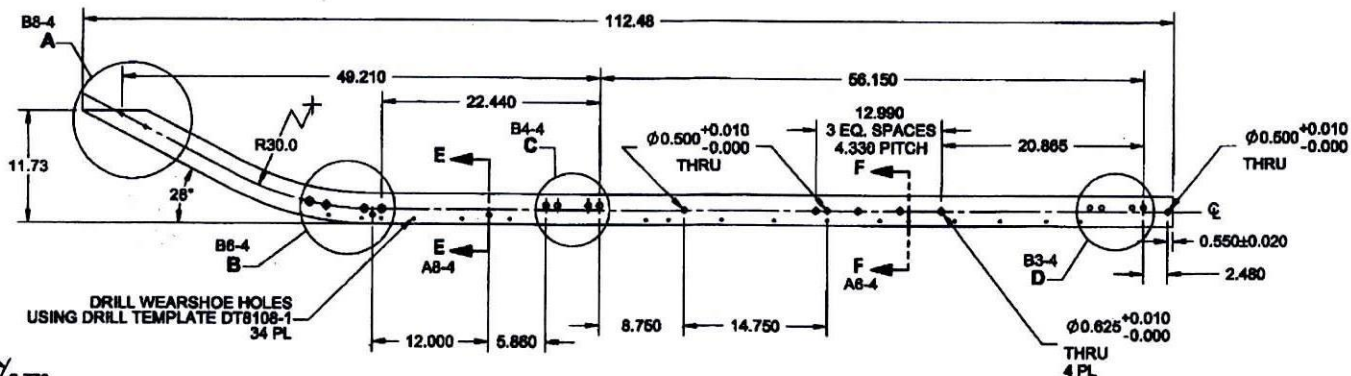
G	CORRECTED TOLERANCE ON $\phi 0.500$ THRU HOLE: IS $+0.010/-0.000$, WAS $+0.100/-0.000$ (ZN B3-4, B2-5); ADD VIEW TO CONTROL FWD BEND ORIENTATION (ZN D-1-4/-3-4/-7); UPDATED FINISH OPTIONS: INSIDE OF TUBE NO LONGER SPRAYED WITH LPS-3; REASON: PARTS-276 AND NCR13-2757	MB	13.07.11
F	INCORPORATE DSI 9413; QTY (3) D3537-1 WAS QTY (5) (ZN C8-1); D3791-1/-3 REPLACES D3535-13/-35 (ZN C8-1); D3794-1/-3 REPLACES D3536-13/-35 (ZN B8-1); ADD D3791-1 (ZN C8-1); WEARSHOE HOLES UNDER FWD/AFT SADDLE REMOVED (8 PL); WEARSHOE HARDWARE QTY UPDATED (ZN B8-1); D3488-041/-042 HARDWARE UPDATED (ZN C1-8, 9, 10, 11); ADD NOTE 12 AND 13 (ZN A6-1); REASON: REF. NCR 06-043	PH	08.07.16
E	CHANGE TO STAINLESS STEEL WEARPLATES; ADD RUBBER GASKETS; CHANGE INSERTS; ADD D3631-1; REMOVE QTY (38) NAS1515H3L; REMOVE QTY (10) NAS1515HBL; REMOVE D2741; QTY (2) AN960C816; REMOVE QTY (2) MS21083C8	CB	07.05.17
D	ADD HOLES AND SPACERS FOR APICAL FLOATS; INCORPORATE DEC 91329/167	PH	06.01.05
C	ADD D2750-3/D2750-4; INCORPORATE D2738 AND D2740	CP	06.11.18
B	CHANGE MS24694-5293 TO AN8-16A	CP	06.09.01
A	NEW ISSUE	DS	06.04.16
REV.	DESCRIPTION	BY	DATE
DESIGN	MM	DART AEROSPACE USA, INC.	
DRAWN		KENT, WA	
CHECKED		DRAWING NO.	REV. G
MFG. APPR.		D2750	SHEET 1 OF 11
APPROVED		TITLE	SCALE
DE APPR.		350 SKIDTUBE ASSEMBLY	NTS
DATE	13.07.11	COPYRIGHT © 1998 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS UNCLASSIFIED AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR FOR ANY COMMERCIAL PURPOSE WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	



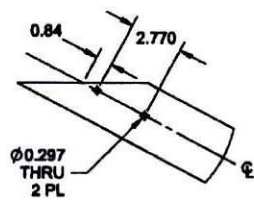
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DESIGN	MM	DART AEROSPACE USA, INC.	
DRAWN		KENT, WA	
CHECKED		DRAWING NO. D2750	REV. G
MFG. APPR.		SHEET 2 OF 11	
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DE APPR.		350 SKIDTUBE ASSEMBLY	NTS
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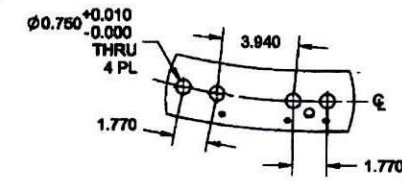
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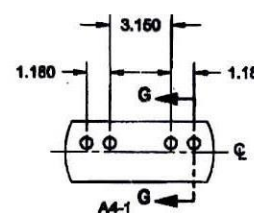
D2750-1 LH SKIDTUBE



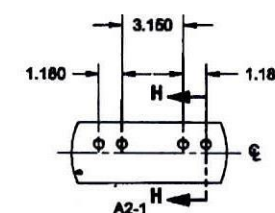
DETAIL A
SCALE 2X



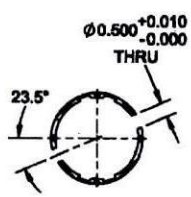
DETAIL B
SCALE 2X



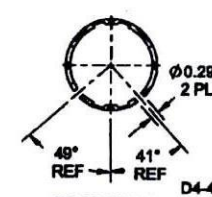
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SCALE 2X



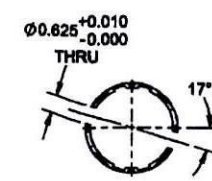
DETAIL D
SCALE 2X



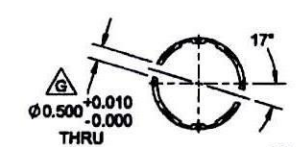
SECTION E-E
SCALE 3X, 2 PL



SECTION F-F
SCALE 3X, 17 PL



SECTION G-G
SCALE 3X, 4 PL

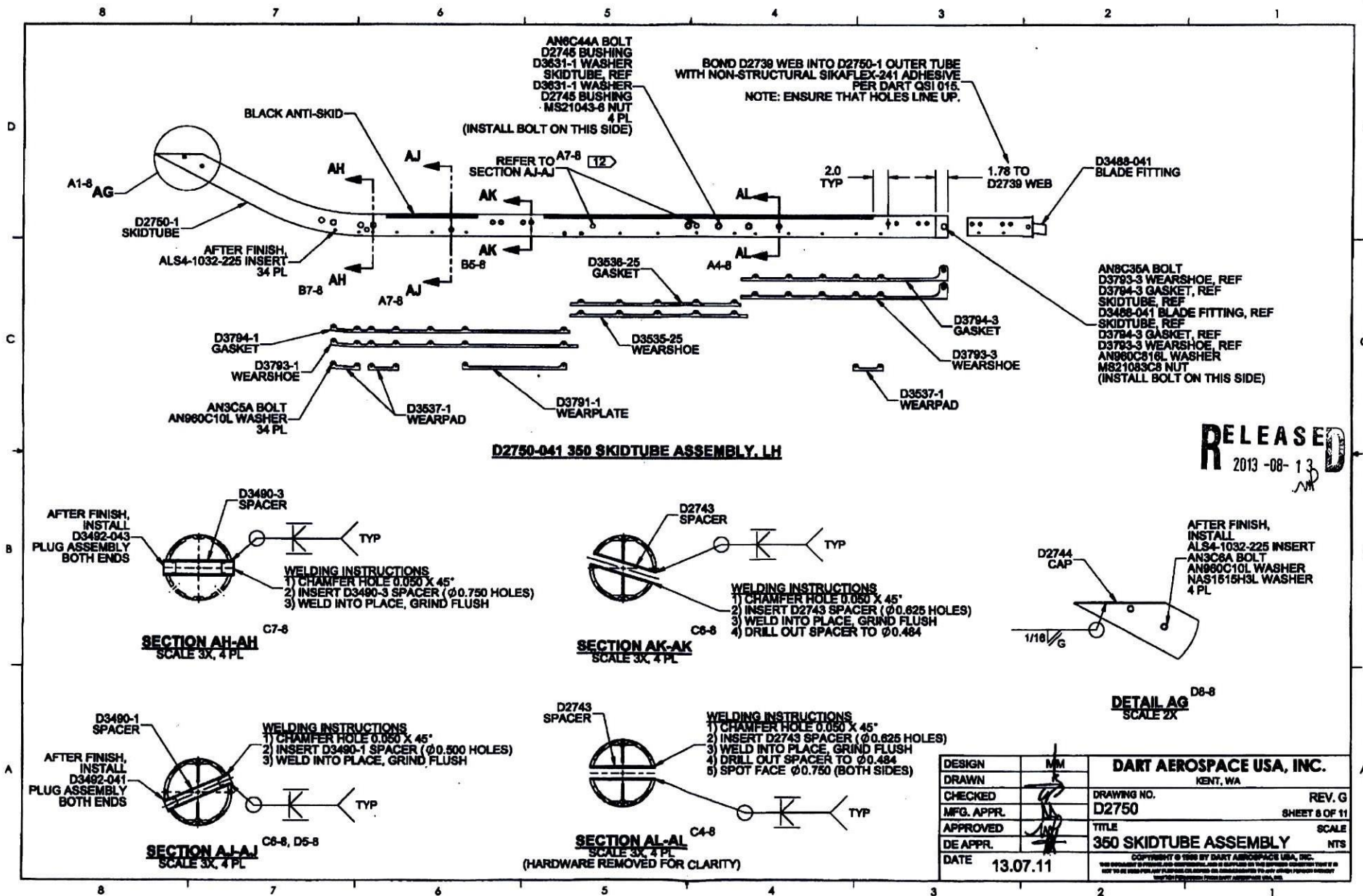


SECTION H-H
SCALE 3X, 4 PL

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DESIGN	MM	DART AEROSPACE USA, INC.	
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MFG. APPR.		D2750	SHEET 4 OF 11
APPROVED		TITLE	SCALE
DE APPR.		350 SKIDTUBE ASSEMBLY	NTS
DATE	13.07.11	COPYRIGHT © 1990 BY DART AEROSPACE USA, INC.	

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Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER **PO039794**

Supplier: ATE003-VC
Atelier Debosselage
358 Principale
Calumet
QC
J0V 1B0 Canada
Phone: 819 242 5633

PO No: PO039794
PO Date: 5/4/18
Due Date: 5/7/18
Purchase Order Revision:
Revision Date:
Ship-To Contact: Lavoie, Chantal
clavoie@dartaero.com

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

Via: Ground
Pymt Terms: Net 30
Freight Terms:
Special Comments:

Items

Line Item	Job	Part	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1	175051	D350-636-011	Skidtube LH, Std Wearplates, DART (Apical) Cylindrical/Aerazur Float Comp.	Firmed	5/7/18	1 pcs	0 pcs	1 pcs	\$225.00/pcs	\$225.00
	175052			Firmed	5/7/18	1 pcs	1/0 pcs	1 pcs	\$225.00/pcs	\$225.00
Sub Total:						2	0	2		\$450.00
2	175054	D350-636-012	Skidtube RH, Std Wearplates, DART (Apical) Cylindrical/Aerazur Float Comp.	Firmed	5/7/18	1 pcs	0 pcs	1 pcs	\$250.00/pcs	\$250.00
	175060			Firmed	5/7/18	1 pcs	1/0 pcs	1 pcs	\$250.00/pcs	\$250.00
Sub Total:						2	0	2		\$500.00
3	175817	D135-751-011	Skidtube with Standard Wearplates Fits LH or RH	Firmed	5/7/18	1 pcs	0 pcs	1 pcs	\$225.00/pcs	\$225.00
	175818			Firmed	5/7/18	1 pcs	1/0 pcs	1 pcs	\$225.00/pcs	\$225.00
Sub Total:						2	0	2		\$450.00
4	175481	D3391-023	Mid Tube Assembly	Firmed	5/7/18	1 pcs	0 pcs	1 pcs	\$0.00/pcs	\$0.00
Line Item Note RE-WORK <i>see PO039793</i>										
Grand Total:										\$1,400.00

Order Notes

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

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Change Record

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Part Number: D350-636-011/-011GB/-012/-012GB

Description: SKIDTUBE STD LH/RH, FLOAT COMPATIBLE

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